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TOP NEWS: Greene may thwart BOCs' long distance plans, p.17
FCC adopts rules for private line rates, volume prices, p.21
U.K. trade minister slams Britain's export failures, p.22

Cover: Three international features—from the U.K., the U.S. and France—examine some of the unanswered questions about videotex, beginning on p.32

April 23, 1984

VOLUME 206
No. 17

telephony

News of the Week 17
Greene may stop BOC long distance move
• AT&T confirms interest in Inmos
• RCA Americom forms new marketing group

FCC sets guidelines for private line rates in the U.S. Capital: FCC seeks comments on satellite policies • Washington Round-Up 21
Victor Block

U.K. minister blasts British export failures 22
European Liberalization: Subscribers to get BT share offer
R.J. Raggett

Editor-Europe 29
As We See It: John Williamson joins TELEPHONY as editor-Europe, helping to maintain world [illegible] coverage

COVER STORY: Viewdata is maturing in Europe 32
After a slow start, Europe's viewdata services are heading into a period of sustained growth. This article explains why
Julian Hewett

38 Videotex in the United States
Videotex is gaining ground in the U.S. as well. Here's a summary of the situation and the outlook ahead
William W. Seelinger

44 Personal info terminal for professionals
The French telecommunications administration spurred development of this terminal, helping French industry in the process
Laurent Verrecchia and Michel Moraine

52 Cable connects South East Asian countries
The second part of a two-part article describes the cable laying operations of the ASEAN submarine cable system
Hideo Uematsu, Norio Abe, Ichiro Ono and Mitsuo Iida

64 Up, up and away in November
The Arabsat program, designed to provide telecommunications services and CATV to 22 countries, is ready to go
R.J. Raggett

67 Southwestern Bell fights vandalism
Plant Man's Notebook: Eli Lilly Co. installs lightguide cable system
Ray Blain

DEPARTMENTS

Advertisers' Index	102
European Liberalization	22
In the U.S. Capital	21
Letters	12
Meetings	11
Merits and Milestones	104
Moving Around Industry	84
New Products and Services	70
News of the Week	17
Plant Man's Notebook	67

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Viewdata is maturing rapidly in Europe

JULIAN HEWETT

"*JE SUIS ici!*" announce the street posters in Paris, referring to the triumphant arrival of Teletel service in the French capital. The service is on public display in a bureau of cultural information that is appropriately located at the futuristic shopping complex of Les Halles.

Recently, I asked one of the Teletel terminal operators at Les Halles what concerts were planned for that evening. This request took about 10 minutes to process; the operator had to work her way through the cumbersome viewdata routing, before producing a hard copy of each relevant frame on the printer. However, I had previously acquired the same information from the newspaper in less than a minute! This personal experience helps to illustrate the answer to the question, "What is viewdata?"

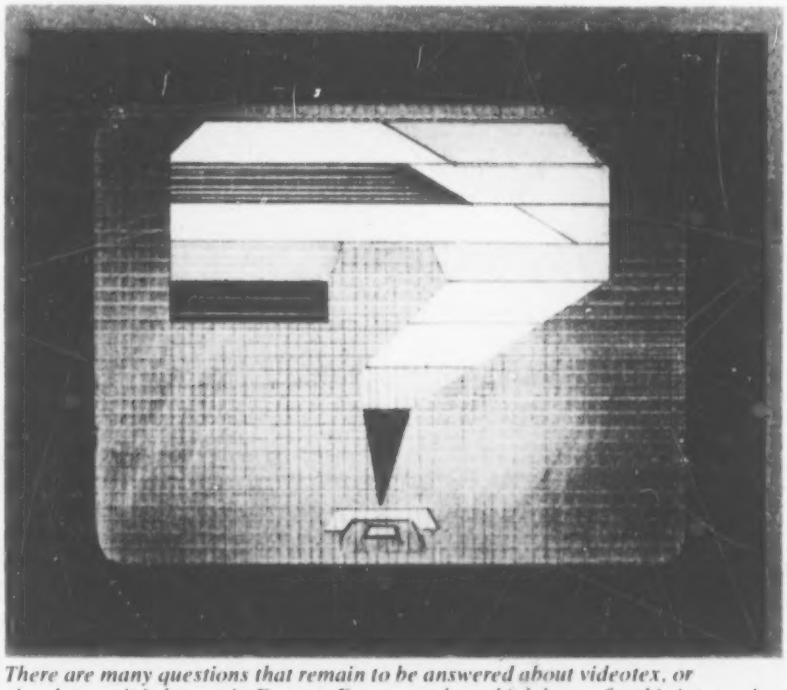
In essence, viewdata is only a presentation and transmission medium. In other words, it is a technology, not a product. It is the information that creates the market, not the medium. A great many potentially exciting viewdata applications have not proved successful because their proponents have failed to consider the competition, in other words, the alternative ways of obtaining the required information. A newspaper or a conventional phone call is often more convenient and usually cheaper. User friendliness and low cost—the two key features of viewdata—do not, by themselves, sell terminals. Thus, when measured against the original expectations around in the late 1970s, viewdata has failed.

The millions of Prestel sets forecast for British households by 1984 have not materialized. The original vision for Prestel was of a mass market service aimed at the residential sector, the main incentive of which was to increase utilization of the telephone network during the off-peak evening period. In fact, the results have proved to be completely the opposite. The main penetration of viewdata to date has been in the business sector which, of course, has used the medium during peak-rate business hours.

However, after having opened on a somewhat pessimistic note, it is worth pointing out that these earlier mistakes have succeeded in focusing the minds of those responsible for developing viewdata on the real issue: how can the viewdata medium best be exploited? This discussion will review developments in the major European countries before identifying the reasons, within both the residential and the business sectors, why viewdata is heading for explosive growth in the second half of this decade.

Public viewdata services

It is fascinating to review the approaches of the three major European countries toward public viewdata services in terms of how they relate to the national characteristics of the country in question. Viewdata was invented by the British, displaying their characteristic flair for innovation, but, equally in character, they completely failed to understand the market for Prestel, and it was unsuc-



Cover art by Leon Danilovics

There are many questions that remain to be answered about videotex, or viewdata as it is known in Europe. Europeans have high hopes for this interactive service which provides easy access to various databases. In the United States, the reactions are favorable, but more reserved.

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Table 1

Status of public viewdata systems in Europe

Country	Name	Status	System	Current estimate of terminals
Austria	Bildschirmtext	Trial opened in March '81; full service opens in 1984.	GEC/Prestel	300
France	Télétel 3V	Trial opened in October '81; full service opened in October '82.	Télétel gateways and Transpac to hosts	10,000
	Electronic directory	Trial opened in 1982; full service available throughout France by 1986.	Télétel	40,000
Germany	Bildschirmtext	Trial opened in June '80; full service opens in 1984.	GEC/Prestel (trial) about to be replaced by IBM/CEPT	6000
Italy	Videotel	Trial opened in May '81; decision awaited on full service.	GEC/Prestel	1000
Netherlands	Viditel	Opened in 1980	GEC/Prestel	7000
Spain		Trial being conducted; full service opens late '84.	CTNE/CEPT	400
Sweden	Datavision	Opened in September '82.	Ericsson/Prestel	1000
Switzerland	Videotex	Trial opened in 1979; full service opened late '83.	DEC gateways and TELEPAC hosts	Not available
U.K.	Prestel	Opened in September 1979	GEC/Prestel	26,000

cessful in the residential sector. The Prestel system was purchased by the Germans, but right from the start they developed the idea of a gateway facility that would allow terminals to use the public system as a gateway to third-party databases on remote hosts. This development was heavily influenced by a German law, passed after the Second World War, that prohibits government bodies from broadcasting propaganda.

The French, on the other hand, developed the idea with a customary single-mindedness to ensure that their services would succeed at all costs. Basically, this consists of pumping large amounts of money into the development of services and terminal products. The intention behind this is to overcome the chicken and egg situation which has created problems elsewhere: information providers and terminal suppliers are reluctant to develop products until there is a worthwhile market; on the other hand, potential users are not keen to sign up until good databases and cheap terminals are available.

Prestel

Prestel, the world's first full operational viewdata service, was opened to subscribers in London in September 1979. Today more than 26,000 users can access 250,000 frames of information supplied by more than 1000 information providers. Prestel consists of a nationwide computer network which uses GEC 4082 computers. A large portion—60%—of telephone subscribers now have local call access to Prestel through these local Information Retrieval Centres (IRCs). There is an Update Centre (UDC) in London for information providers. Prestel has purchased Gateway software from the Deutsche Bundespost (DBP) and this facility has been available since 1982. Currently 70 third-party databases are available via Gateway. Prestel is now a mature service. Growth of subscribers had been sluggish until recently, when a number of marketing and product improvements have caused subscriptions to rise more rapidly.

Bildschirmtext

Bildschirmtext (or BTX) is currently at the end of a field trial in Germany. This began in June 1980 and is only available in the Dusseldorf-Neuss area and in West Berlin. The Bildschirmtext service has been the subject of much debate in Germany, particularly after International Business Machines Corp. (IBM) was given the initial contract for supply of the full service, an ambitious and complex network, in preference to German suppliers. IBM reputedly tendered a very low bid in order to win the contract because of its prestigious nature. However, IBM has missed delivery dates for the system and now is reported to be paying the penalties for late delivery. The complex network of IBM mainframes and Series/1 minicomputers will replace the GEC computers and Prestel software that the DBP purchased from the U.K. This new system will be broadly in accordance with the new CEPT (European conference of postal and telecommunications administrators) terminal standard, which is a European compromise between the existing British Prestel and French Antiope terminal standards. It remains to be seen how successful the new system will be, both technically and commercially, but the DBP has made a distinctly optimistic forecast of 1 million subscribers by 1987.

Télétel

The most far reaching services in Europe are being developed in France under the banner of Télétel. This currently includes two services:

a viewdata service and an electronic directory service. The Direction Generale des Télécommunications (DGT) began a trial viewdata service in three suburbs of Paris, known as Télétel 3V. This is currently being extended to the rest of the country. It is not the DGT's policy to provide services themselves but to encourage the development of services by others. It plans to achieve this via Télétel's distributed gateway architecture. This enables viewdata terminals to access a local Télétel node over the public switched telephone network. This node then switches the terminal through to the remote database of its choice. Communication between node and host is via Transpac, the successful French packet switched network. There are currently 200 host computers attached in this way. In addition, viewdata terminals have an auxiliary socket into which peripherals, such as facsimile terminals for hard copy, and a smart card reader, can be plugged.

The electronic directory service is intended to replace telephone directories. This is being achieved by the much publicized free distribution of Minitel terminals to any subscriber who wants one and who is within an area where the service is available. The service will be available nationwide by 1986; the DGT predicts that ultimately 80% of all telephone subscribers will opt for the service. The Minitel is a small black and white terminal mass produced in enormous quantities, thus keeping the unit cost extremely low.

In Austria, a Bildschirmtext trial opened in March 1981 with a full service planned to begin this year. Italy began its Videotel trial in May 1981 with about 1000 user terminals, but to date no decision has been made for the introduction of a full service. About 7000 terminals are in use in the Netherlands, which opened the Viditel service in 1980. About the same number of terminals are currently in service in Sweden, which began its Datavision service in September 1982. Switzerland's Videotex trial began in 1979, with a full service beginning at the end of last year. In Spain, the present trial system will be followed by a full service, scheduled to open toward the end of this year.

A summary of the nine major European public viewdata systems is in Table 1.

The residential sector

One of the major problems of marketing viewdata services into the residential sector is that three separate parties are involved in supplying the service: the service operator, the information provider and the terminal supplier. The other major hurdle is that the value of the service is simply not worth the substantial cost of a viewdata terminal or adapter. The key to success in the residential sector, therefore, is to overcome these two problems, and already there are indications that the French and British will achieve this.

The French electronic directory service overcomes both of these problems directly: the DGT is both the service operator, the information provider, and the terminal supplier; and the terminals are free.

As a result, there is little doubt that the French service will be tremendously successful. Obviously, this approach depends upon very substantial investment by the state and it is unlikely that this could be justified on a free enterprise basis. However, the socialist government of France clearly believes that this is the way to allow all segments of its population equal access to the benefits of computer databases and services. In addition, the French hope that a world lead in this area will prove to be a springboard for future exports, although to date their efforts in the United States have not been promising.

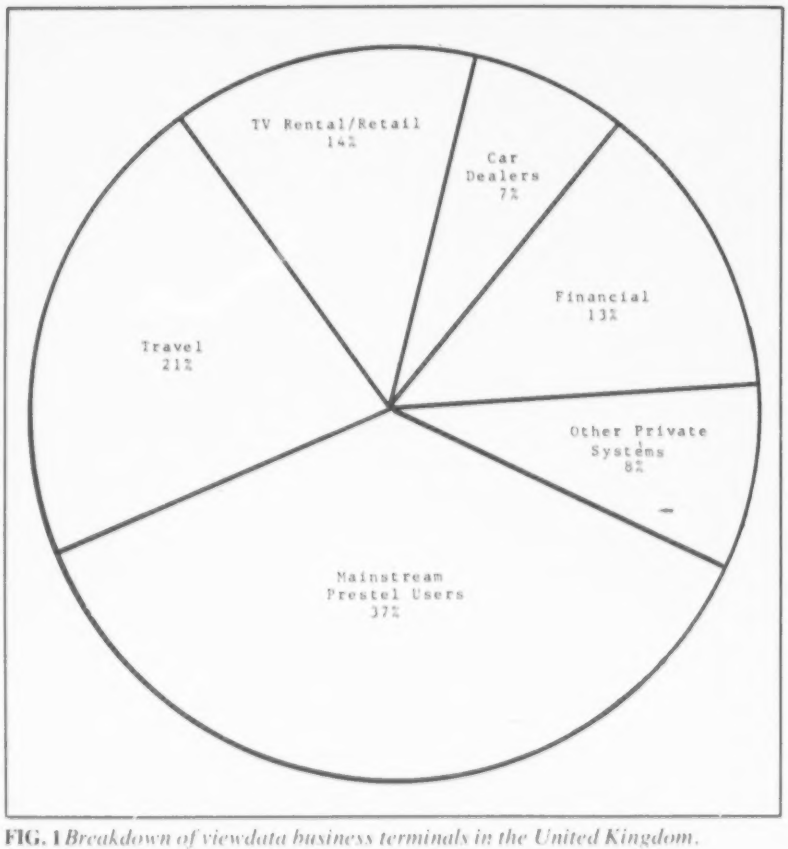

FIG. 1 *Breakdown of viewdata business terminals in the United Kingdom. (Source: Logica's Telematica Service, 1983.)*

The situation in the U.K. is completely different. Within the new environment of competition between telecommunications services, and the impending privatization of British Telecom (BT), the pressures on Prestel are to succeed without further subsidy. This has caused a considerable shift of emphasis in BT's approach to marketing. In the past, BT acted only as service provider and tended to rely on the television rental companies to market Prestel, with disastrous results. BT, therefore, has recently entered into several joint marketing agreements with information providers and terminal and adapter suppliers. The aim is to sell a self-contained service to a target market. These joint ventures, which have suddenly started a rapid increase in residential subscriptions, include:

- Club 403, a database developed by the Birmingham Post containing local news, information, advertising and home delivery services.
- Homelink, developed with the Nottingham Building Society, which offers customers home banking facili-

ties of a limited nature. To those customers who qualify for the service, the TV adapter comes free.

- Micronet, aimed at the home customer user, who is offered software via Prestel and a special adapter. This is reported to be extremely successful.

The business sector

The business sector makes use of both public (PTT operated) and private viewdata systems. In the short term it is the private systems that are experiencing the more rapid growth. Once again this is because private systems are installed for specific applications and, thus, are targeted at specific users. In addition, the most successful applications tend to use viewdata for transaction processing: in other words, as a cheap data processing system rather than as an information retrieval system, which was the original idea behind viewdata. The most exciting of these applications are those that are being introduced in industries where there is a "wholesaler" to "agent" type of relationship. These include:

- The travel sector, where agents access the databases and reservation systems of travel operators. The travel sector has been the major success story of Prestel, and viewdata (either via Prestel, Prestel Gateway, or directly to the operator's own private system) is now the standard means of communication between agent and operator in the U.K.
- The automobile sector, where car dealers locate and order cars using the stock control viewdata systems of their suppliers. British Leyland, Ford and Talbot are all using viewdata in this way.
- The insurance sector, where viewdata is considered to be an ideal medium for communication between insurance companies and their own branches, independent brokers and traveling salesmen. A number of trials are under way, and expectations are high in this sector.

Figure 1 shows an estimate of the breakdown of business viewdata terminals in the U.K. In the long term, however, public systems could well emerge as the more important systems in the business sector. Today, it is extremely difficult to justify a separate terminal for general access to a public service. But in the future, with the rapidly increasing populations of office workstations, access to public viewdata systems will be just one of a variety of office applications that these workstations will support. □

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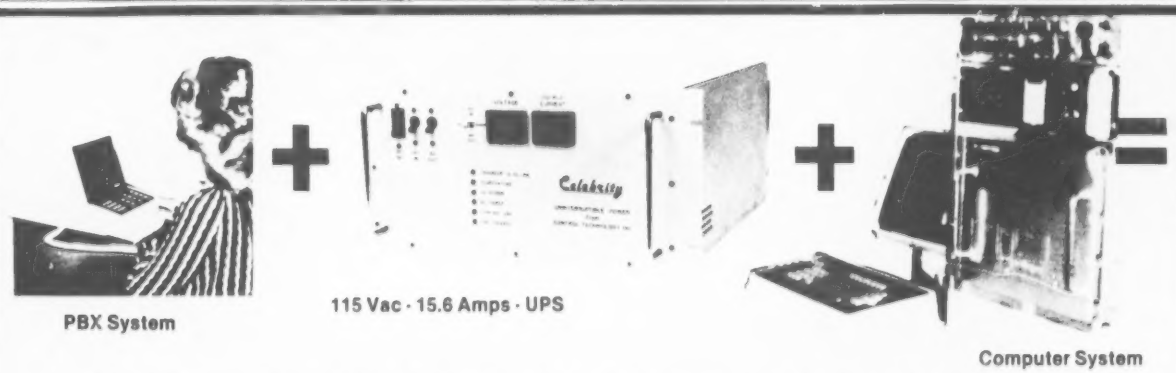

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